Capital Flow Distortions Caused by Repressed Financial Markets

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Donald W. Larson and Stanley R. Thompson

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Abstract

The present paper discusses the main features of repressed financial markets and the various subtle ways that repressed financial markets cause major distortions of capital flows among countries. Some of the key features of repressed financial markets include large fiscal deficits, high inflation, subsidized and directed credit lines, low savings rates, high bank reserve requirements, high transaction costs, and government controls of interest rates and exchange rates. Repressed financial markets may increase risk for agribusinesses by adversely affecting ownership opportunities and the ability to invest locally. The added risks also include exchange rate risk and interest rate risk. Agribusinesses may want to increase use of futures markets, contracting and integration to manage the increased risk. As the world moves to more open markets, countries with repression in financial markets may encounter difficulty attracting foreign investment and mobilizing local resources for economic growth. Reform of financial markets will likely be necessary to succeed in the new world order.

Capital Flow Distortions Caused by Repressed Financial Markets

Donald W. Larson and Stanley R. Thompson[1]

Introduction

The central thesis of the present paper is that repressed financial markets lead to serious distortions of capital flows in financial markets. Repression in financial markets occurs because governments intervene in markets to attempt to benefit targeted groups and/or to correct problems of perceived "market failure". Because of repressed financial markets, financial resources are not allocated by the market system to their highest and best use. Some of the key features of repressed financial markets frequently include large fiscal deficits, high inflation, subsidized and directed credit lines, low savings rates, high bank reserve requirements, high transaction costs, and government controls of interest rates, exchange rates, and capital flows (Adams et al., 1984, Gonzalez-Vega, 1994, and Von Pischke, 1991).

These distortions very likely will increase the financial risks for agribusinesses in countries with repressed financial markets. Repressed financial markets may adversely affect ownership and investment opportunities in a country. Agribusinesses may discover that the investments made in a particular country during a period of economic stability suddenly become uncompetitive and unprofitable during a later time period. Agribusinesses may have difficulty exporting their goods because over-valued exchange rates cause their goods to lose competitiveness on world markets while imports of competing goods become cheaper due to the over-valued exchange rate. Agribusinesses may encounter financing problems because of a financial market facing excess demand for funds from borrowers, credit rationing from lenders, high borrowing and lending costs and inefficient financial intermediaries.

The topic is very timely in today's world of global markets and increased competitiveness. Countries all over the world are more outward looking today than in the past. Trade agreements such as The World Trade Organization (WTO), the European Union (EU), the North American Free Trade Agreement (NAFTA), the Andean countries' trade pact, the Central American Common Market (CACM) and the Southern Cone countries' trade agreement (MERCOSUR) are all examples of the increased emphasis upon open economies, trade and competitiveness.

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[1] The authors are Professor and Professor and Chairperson, respectively, Department of Agricultural Economics, The Ohio State University, Columbus, Ohio.

Repressed financial markets are not uncommon in Central and South American countries as well as in other parts of the world. High inflation and other economic problems in Brazil, Mexico, Bolivia, Argentina, Chile, Nicaragua, Peru, and Uruguay, for example, have resulted in government intervention in financial markets (Table 1). These countries have recently reformed their macro-economic and financial market policy to achieve more open, competitive financial markets.

The present paper discusses the main features of repression in financial markets, followed by an illustration for Mexico of the impacts of these distortions on business decisions and capital flows.

Common Features of Repressed Financial Markets

Common features of repressed financial markets frequently include relatively high inflation rates, pegged exchange rates, large fiscal deficits, interest rate ceilings credit rationing, and low savings rates (Table 2). Governments that have large fiscal deficits may resort to many financial market interventions such as high rates of growth of the money supply to finance the fiscal deficit through an inflation tax. An inflation rate that is higher than the inflation rates of major trading partners will eventually lead to an over-valued exchange rate in a repressed financial market.

Exchange rates can become over-valued because of differential rates of inflation among countries and the structure of protection of a country.[2] Since all countries have experienced some inflation in recent years, a pegged exchange rate will become over-valued whenever the rate of inflation of a particular country is greater than that of its major trading partners. Domestic costs and prices will increase faster than the costs and prices of the foreign imported goods making the latter relatively less expensive. Protective trade polices such as import tariffs and quotas and export taxes and quotas also lead to an over-valued exchange rate by raising the domestic price of the protected good or lowering the price of the export good.

On the one hand, the over-valued exchange rates act as an implicit tax on export sectors such as agribusinesses that are very important sources of foreign exchange in many developing countries (De la Barra et al., 1995). As a result exports tend to decline and a country earns less foreign currency as the exchange rate becomes increasingly over-valued. On the other hand, consumers of food and other imported products are subsidized indirectly because of the low prices for these items. Imports of the cheap goods tend to grow rapidly creating a serious foreign exchange problem as imports grow and exports decline (Larson and Vogel, 1983). The

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[2] See Officer, 1976 for a discussion of these arguments and Balassa and Associates, 1971 and Krueger, 1978 for a full discussion of effective protection and for estimates of effective protection for several countries.

over-valued exchange rate benefits importers and consumers and penalizes producers and exporters. World Bank studies in 1991 and 1992 found that the direct and indirect effects of taxation on agricultural prices (from 1960 to 1984 in 18 countries for 26 commodities) due to industrial protection policy and over-valued exchange rates was large in all regions (usually exceeding 20 percent).

Countries with high inflation may resort to interest rate and price controls to attempt to reduce inflationary pressures. Interest rate ceilings (controls) may result in negative real interest rates (nominal interest rates adjusted for inflation) on loans and deposits because the nominal interest rate adjustment may lag the inflation rate. With negative real interest rates all investors find it extremely attractive to borrow as much money as possible because they can repay the loan in the future using a depreciated currency (Adams et al., 1984). The financial intermediaries cannot satisfy this unlimited demand for cheap funds so various forms of credit rationing emerge. High lender and borrower transaction costs and other rationing mechanisms are used to ration the limited funds among all the potential borrowers. In this repressed market, the largest, most powerful, and possibly the most qualified borrowers tend to be the ones who obtain most of the funds and, therefore, most of the subsidy gain from the cheap credit. To reduce this flow of cheap funds to the largest borrowers, the governments may resort to directed credit lines at subsidized interest rates to benefit selected low income borrowers such as small farmers. For a variety of reasons, particularly the fungibility of credit, these directed credit programs usually fail to accomplish their objectives.

Interest rate ceilings on loans also mean indirectly that interest rates on deposits are controlled because banks will not pay attractive rates on deposits if lending rates are controlled. Low or negative real rates of interest on deposits provide no incentive for savers to hold financial assets. As a result the amount of deposits mobilized for lending is very low causing as gap between the amount of credit demanded and supplied. If interest rates are negative in real terms, savers in fact are taxed for holding deposits in the banking system. Savers indirectly subsidize the borrowers.

A recent analysis of the impact of domestic and external resources on the economic growth of Guatemala, El Salvador, Honduras, and Costa Rica for the 1971-1985 period found that domestic savings exert a much larger impact on economic growth than external resources (Caceres, 1995). The study concludes that mobilization of domestic resources, financial, real, and human, is the key to Central American development.

Financial Repression and Capital Flows in Mexico

The financial market of Mexico illustrates many features of financial repression coupled with large capital out-flows in the economic crises of 1994 and 1995. Mexico's financial market is changing dramatically as the government continues a process of reforming and modernizing the financial system to increase efficiency and competitiveness. The reforms include items such as de-regulating interest rates, privatizing government owned banks, eliminating selective and

subsidized credit, and other reforms of financial markets in the 1980s (Katz, 1995). The benefits of the recent reforms have not been fully realized because of the economic crisis of December 1994.

Mexico has experienced inflation rates much higher than in the U.S., a major trading partner, from 1983 through 1995 (Figure 1). The higher inflation rates have led to a de-valuation of the peso relative to the dollar from 1983 to 1994, with large adjustments in 1987 and 1994 (Figure 2). However, Mexico's "managed exchange rate" adjustments appear to lag the inflation rate differential causing the peso to become increasingly over-valued. As Mexican exports became less competitive on world markets, the trade balance changed from about a US$ 15 billion surplus in the early 1980s to a negative US$ 20 billion in 1992 and 1993 (Figure 3). A rapidly growing foreign investment capital flow in the early 1990s, especially portfolio investment in the Mexican stock market, helped to reduce the problems of a trade deficit (Figure 4). The portfolio capital inflow, however, changed dramatically in 1995 as result of the Mexican economic and political crisis and increasing U.S. interest rates (Gruben, 1996). It is noteworthy that foreign direct investment in plants and equipment continued to increase from 1983 through 1995 in spite of the economic and political crises.

Real interest rates (nominal bank lending rates adjusted for inflation) have fluctuated from levels as high as 20 to 25 percent in the mid 1980s to a negative 15 or 20 percent in 1987 and 1988 and then increasing to about 11 percent in 1994 (Figure 5).[3] With nominal lending rates around 40 percent in 1995 and inflation around 35 percent, the real lending rate has again fallen to low levels. Even at low real interest rates there appears to be a short term credit crunch because of the economic crisis and banking problems such as rapidly increasing past due loans (Torres, 1996).

Agribusinesses, as well as all businesses, may find it very challenging to conduct business operations in a competitive and sustainable way in a repressed financial market with rapidly changing conditions. Export opportunities may look very favorable during one period and look very unfavorable during another as the exchange rate becomes increasingly over-valued due to differential inflation rates among trading partners. Exporters and importers must seek ways to manage the exchange rate risk to survive in such a rapidly changing market. Some of the means to manage foreign exchange rate risk include hedging in futures market, contracting, and vertical integration.

Participation in U.S. futures exchanges can be an effective means of risk management for non U.S. firms. In particular, off-shore international traders often face both commodity price and exchange rate risk. In situations like this, Thompson and Bond (1987) examined the optimal

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[3] A widely used definition of real interest rates uses the formula $r = 1 + i / 1 + p$ minus 1 where r is the real interest rate, i is the nominal rate, and p the mean rate of inflation (Von Pischke, 1991).

level of participation in U.S. futures markets within the context of floating exchange rates. They found that the optimal hedge was highly sensitive to the degree of exchange rate instability.

Agribusinesses may also find that availability and cost of funds can vary dramatically from one period to another. Domestic credit from the banking system may be difficult for agribusinesses to obtain as governments compete for limited funds with the private sector. Firms that rely primarily on internal capital may have an advantage in these conditions. As discussed above real interest rates on credit have fluctuated a great deal making it very attractive to borrow in pesos in one period and very expensive in another period. Firms that have the opportunity to borrow in various currencies may be able to have a lower cost of money than firms borrowing in only one currency. Agribusinesses may also be able to manage the interest rate risk through the use of interest rate futures contracts, self financing and vertical integration.

Conclusions

The absence of efficient financial markets causes capital flow distortions. Government directed credit lines at subsidized rates of interest often attempt to target credit to high priority areas such as small farmers or businesses that may not have the most productive use of funds. Because credit is subsidized an excess demand for credit develops. Negative or low real interest rates provide little incentive for savings mobilization causing a shortage of loanable funds in the banking system. Lenders must ration the limited funds among all the potential borrowers. Fixed exchange rates can quickly become over-valued in an inflationary economy. Over-valued exchange rates that tax export sectors and subsidize imports weaken the competitive position of agribusinesses on world markets.

Capital is a very mobile resource and will flow to those countries, regions, and sectors where the highest return can be earned. Countries, regions and agribusiness firms are most interested in using their capital where the highest return can be earned. Agribusiness firms have many alternative countries and sectors in which to invest their funds. Agribusinesses may encounter increased risks when conducting business in countries with repressed financial markets. Agribusinesses may want to use futures markets, contracting and vertical integration as ways to manage the increased risk. Countries with repression in financial markets may have difficulty attracting foreign investment and mobilizing the local resources needed for economic growth. Reform of the financial markets may be necessary for the businesses and countries to succeed in the new world order.

As the world moves to more open markets, agribusinesses will be able to produce and trade goods from most anywhere in the world. The choice of location will be heavily influenced by the expected business risks and the most efficient place for an activity. While goods are becoming more mobile, and labor to some extent, capital is the most mobile resource. Capital will readily flow into and/or out of countries as it seeks to earn the highest return possible. The success of the newly industrializing countries of the Pacific Rim, the "Asian Tigers", with their more open, competitive economies may be the most appropriate model for other countries that want to attract businesses and achieve faster economic growth (Krugman, 1994).

Table 1. **Annual Inflation Rates in Selected Countries and Macroeconomic Policies Employed to Correct Inflation**

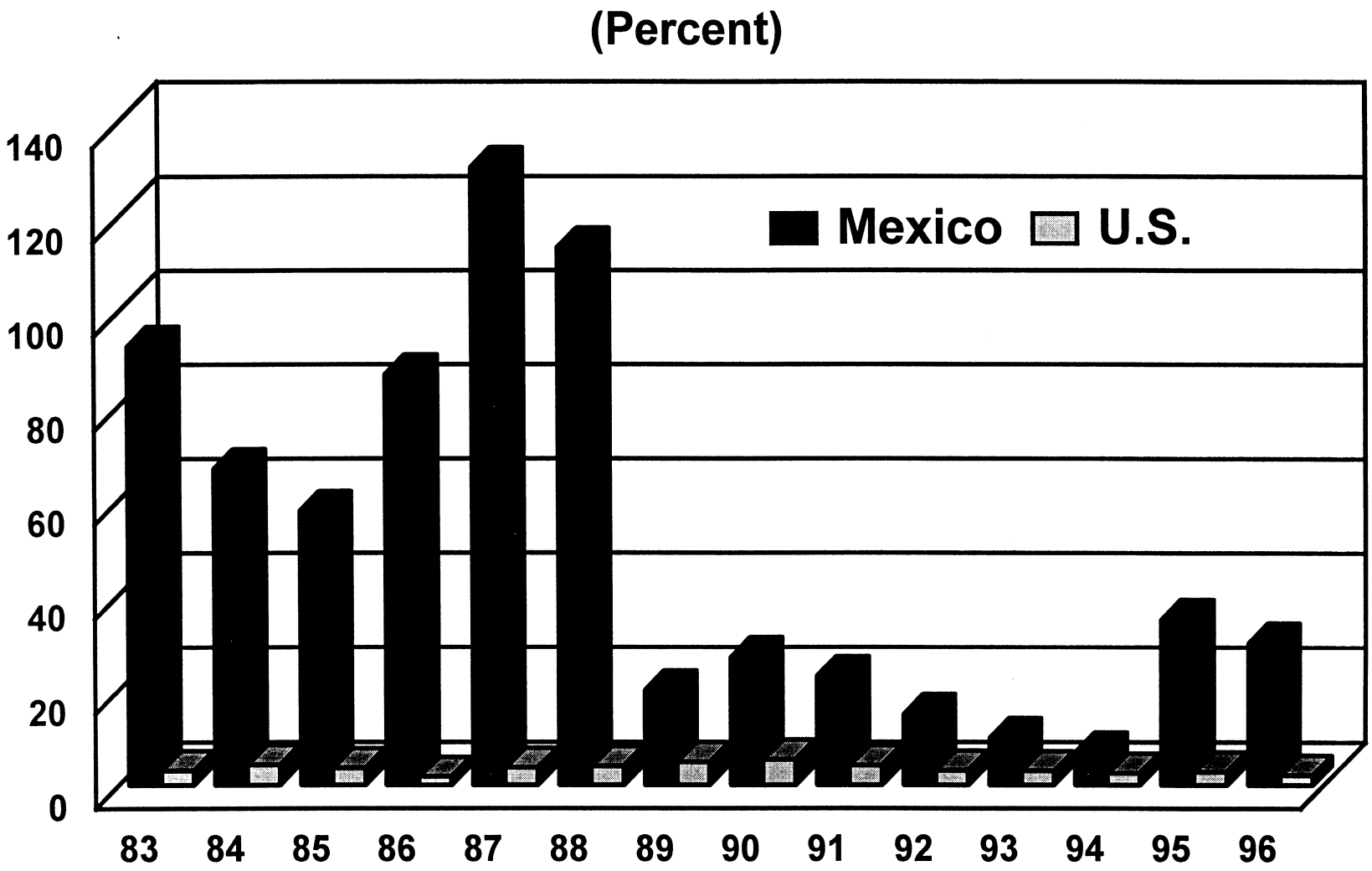
COUNTRY	INFLATION 1981-85	INFLATION 1985-90	--MACROECONOMIC POLICIES--
BRAZIL	160%	954%	Cruzado plan - Monetary reform, brief wage and price freeze followed by administered prices, increase in interest rates, fiscal rebates introduced to stimulate exports and savings, suspended interest payments on foreign debt, devalued currency
MEXICO	66	73	Fiscal and monetary policy, structural reforms aimed at liberalization, joined GATT in 1979, wage and price freeze followed by wage and price controls, reduced size of public sector, deregulation of prices, removal of price subsidies, secured more foreign credits
BOLIVIA	2,200	27	Tight monetary policy, increased tax revenues, reduced employment in public corporations, devalued currency by 93%, eliminated debt servicing, introduced value added tax (VAT), obtained external financing for investments, obtained structural adjustment loan from IMF, aimed at annual average price increase of less than 10%
ARGENTINA	370	1,382	Austral plan - Price freeze followed by administered prices, increased interest rates, economic integration and cooperative agreement with Brazil in 1986, special export programs, obtained loan from IMF to pay external debt and reformed public sector by restructuring, staffing and adjusting price levels
CHILE	21	20	Export promotion, efficient import substitution, greater domestic savings, improved international payments position, reduced size of public sector and transferred enterprises to private sector, increased ceiling for foreign investment, reduced import tariffs
NICARAGUA	93	10,176	Devaluation of official exchange rate (settlement of 50% of exports and cash grants at the official rate with the other 50% settled at the exchange agency rate), bank reserve requirements increased to channel resources to key productive activities, interest rates on lending and borrowing increased, taxes increased and wages adjusted
PERU	108	2,467	Reduced production costs, reduced interest rates and tax burden of businesses and individuals, revived domestic output and demand with expansive monetary and fiscal policies, maintained overvalued exchange rate in order to make imported inputs less expensive, and exchange controls reinforced to ensure availability of foreign exchange for economic recovery
URUGUAY	50	84	Reduced public sector deficit with measures designed to control the rise in spending, periodic adjustments of rates and prices for public services, limited the money supply growth, wage adjustments with workers and employers every four months, monitored movements of international reserves and changes in exchange rate, negotiated new terms for servicing external public debt

Sources: Date on inflation - CEPAL, *Transformacion Productiva con Equidad* and CEPAL, *Preliminary Overview...*1990, 1991. Data for 1961-1980 are from IDB, *Economic and Social Progress in Latin America* 1990 Report. Information on macro economic policies - IDB, *Macroeconomic Policies - Economic and Social Progress in Latin America*, 1987 Report. Table from De la Barra et al. p. 186.

Table 2. **Common Features of Repressed Financial Markets Compared to Open, Competitive Financial Markets**

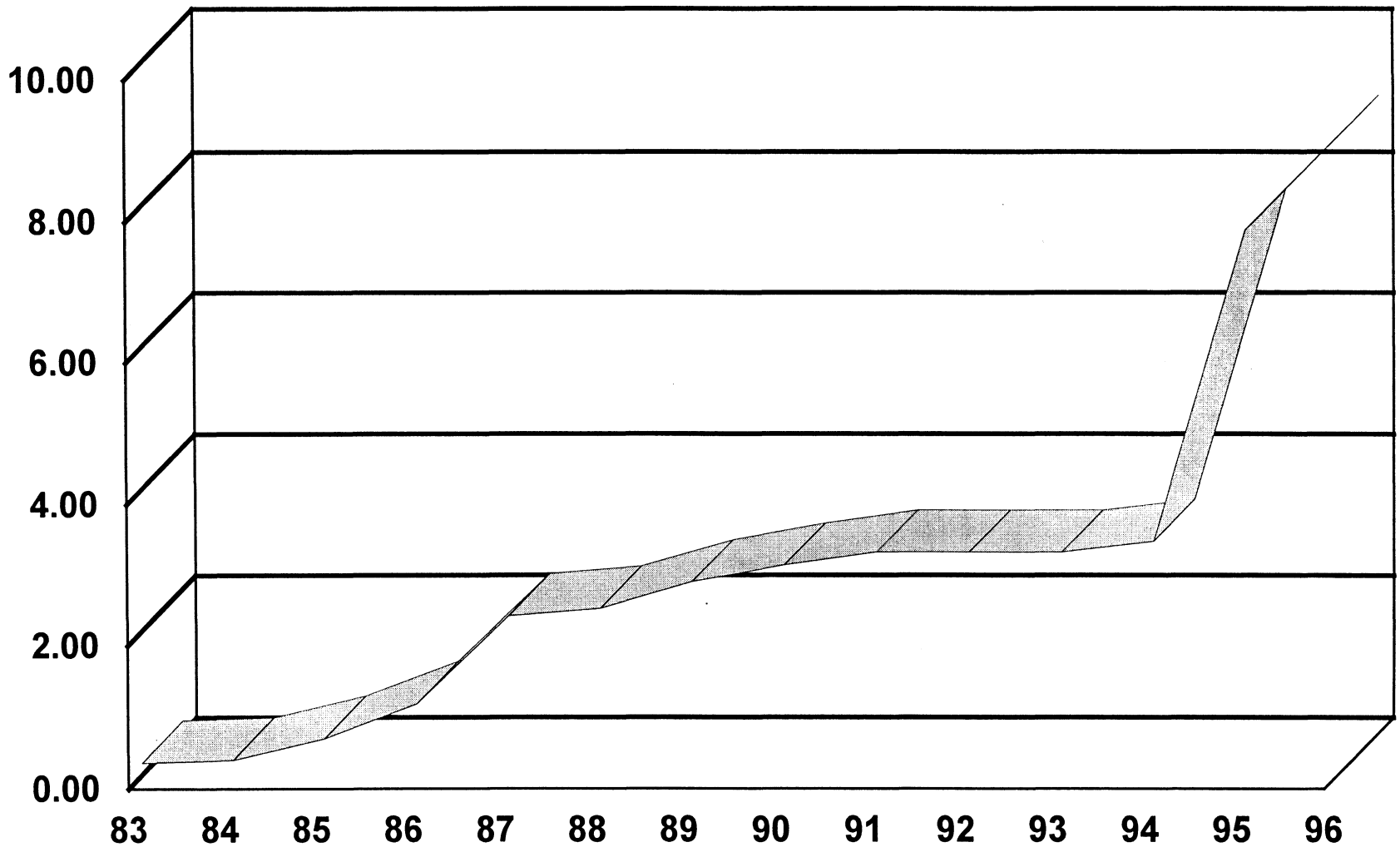
Repressed Financial Markets	Open, Competitive Financial Markets
High Inflation	Low Inflation
Pegged/Over-valued Exchange Rates	Floating Exchange Rate
Large Fiscal Deficits	Small Fiscal Deficits
Interest Rate Ceilings	Market Determined Interest Rates
Negative Real Interest Rates	Positive Real Interest Rates
Capital Outflows	Capital Inflows
Subsidized Interest Rates with Directed Credit Lines	Market Interest Rates
Credit Rationing	Market Allocation of Funds
Low Savings Rates	High Savings Rates
High Transaction Costs	Lower Transaction Costs

FIGURE 1: INFLATION IN MEXICO AND THE U.S.



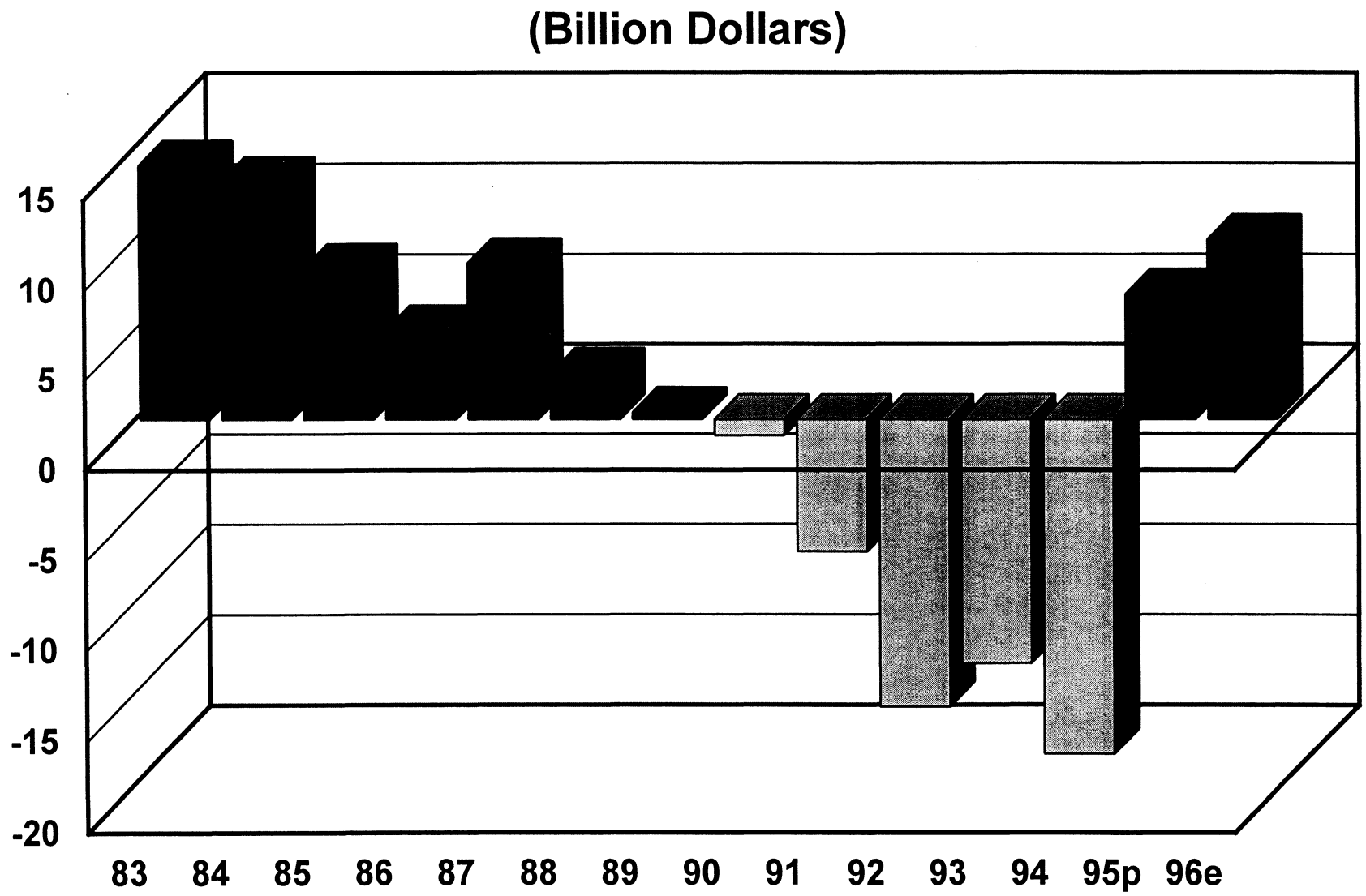
Source: International Financial Statistics

FIGURE 2: EXCHANGE RATE: MEXICAN PESOS PER U.S. DOLLAR



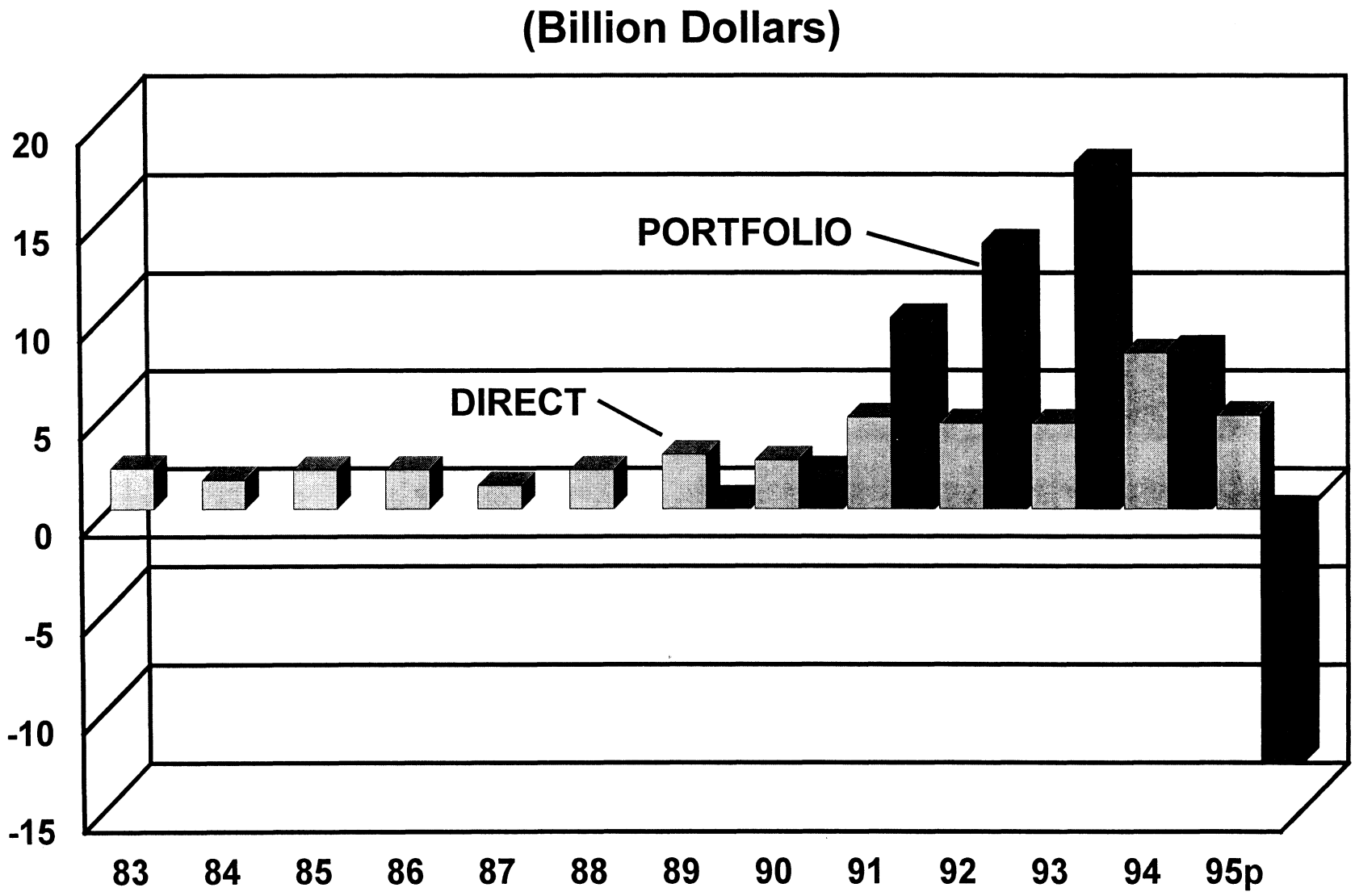
Source: Shwedel

FIGURE 3: MEXICO'S TRADE BALANCE



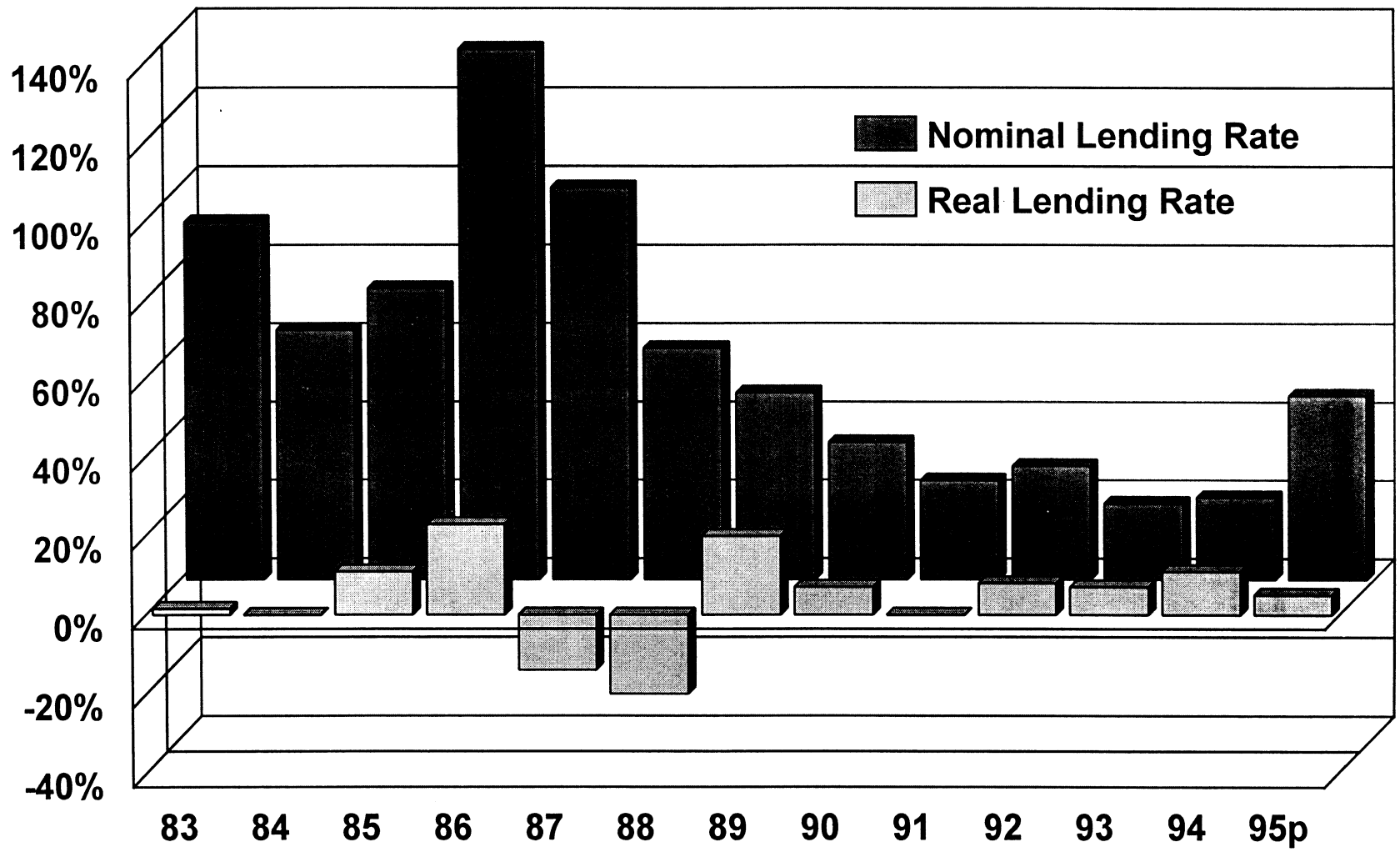
Source: International Financial Statistics and Shwedel

FIGURE 4: FOREIGN INVESTMENT IN MEXICO



Source: International Financial Statistics and Shwedel

FIGURE 5: NOMINAL AND REAL LENDING RATES IN MEXICO



Source: Nominal Rates from Shwedel and Real Rates calculated

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